Abstract

To provide an eccentrically oscillating gear device that can omit a pin press member and thus enhances the degree of freedom of design when the tooth top portions of an external gear are cut out.

The eccentrically oscillating gear device is equipped with an internal gear 15 having internal gear pins 15a on the inner periphery thereof, a carrier 11 rotating relatively to the internal gear, a pair of bearings 19, 20 that have a rolling element and a ring body for supporting the rolling element and are disposed between the outer periphery of the carrier and the inner periphery of the internal gear, a crank shaft supported by the carrier so as to be freely rotatable, and external gears 13, 14 that are equipped, on the outer periphery thereof, with external teeth having a trochoid tooth profile whose tooth top portions are cut out, and disposed between the pair of bearings, the outer peripheries of the external gears being engaged with the internal gear pins and fitted to the crank portion of the crank shaft. The eccentrically oscillating gear device is designed so that the external gear makes an eccentrically oscillating motion by rotation of the crank shaft and the rotational output is taken out from the internal gear or the carrier. Furthermore, receiving portions 21 for receiving the end portions 23 of the internal gear pins are formed at the end surface portions at the external-gear side of the pair of bearings,

and support the internal gear pins to regulate the movement of the internal gear pin to the carrier side.